



# INTERNATIONAL BROADCASTING BUREAU

Washington, D.C. 20547

Greetings:

This "TVRO Operations Guide" is to assist users with the operation of the satellite equipment IBB has provided. This document is intended to be (1) complete, (2) up to date and (3) simple and easy to use, especially in the event of a program interruption. It falls short of reaching these contradictory goals but we believe that it is a good start. We ask you to appreciate that the rapid change of Technology, of Satellite availability, of organizational changes and of changing needs of users like yourselves, has made this guide a most difficult task. We intend to issue a revised guide soon.

For TVRO operations support, please contact the following:

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If Mr. Cantalupo is not available or you have suggestions to improve this manual, contact:

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If you need immediate assistance 24 hours per day, 7days per week, call the IBB Network Control Center, (NCC) (202) 619-1783

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# **1 Using this Guide**

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## ***Purpose and Audience***

The purpose of this Operation Guide is to be the primary source for information on the operation, optimization, and maintenance of a United States Information Agency (USIA) site's Television Receive Only (TVRO) system. This guide does not cover TVRO installation procedures. For that information, refer to the *TVRO Installation Guide*.

This guide is to be used by Foreign Service Officers and foreign service nationals who are required to understand, use, and maintain the TVRO system.

## ***Organization***

This Operation Guide is designed to provide technical, power-up, optimization, and operational information on each TVRO subsystem.

The guide is organized into the following chapters and appendices:

1. Using this Guide

This chapter includes the purpose, the organization, and the notational conventions used in this guide.

2. WorldNet Profile

This chapter is a summary of what WORLDNET is, how its satellite transmission network operates, and what components compose a TVRO system.

3. Antennas

Terms associated with an antenna's ability to collect a satellite signal are defined. The different types of antenna mounting structures are identified. Because they are close physically and operationally to the antenna, information on the location and function the feedhorn and the low noise block downconverter (LNB) are included. Separate sections about the IRTE, Paraclipse, Telesat, and Vertex antennas are provided.

4. Receivers

The functions of the system receiver are defined. Separate sections about power up, optimization, and operation of the ComStream, Scientific Atlanta, Standard Communication, and Wegener receivers are provided. Summary information on older models still in use is also included.

5. Positioners/Trackers

The purpose and operation of a system positioner or tracker is described. Separate sections about power up, optimization, and operation of the Pace and Manhattan trackers are provided. Summary information on older models still in use, such as the MERRIMAC and Pansat, is also included.

6. Monitors

Component descriptions and general terms are defined. The different types of video transmission standards are identified. System and signal processing guidelines to be followed in selecting video monitors, televisions, videocassette recorders, and audio amplifiers are provided.

7. Monitoring Equipment

Component descriptions and general terms are defined. A separate section about descriptions and terms for the Central Dynamics audio and video distribution amplifiers is provided. The operational details of the Videotek mono and stereo audio monitors are also included.

## 8. Operation

The specific steps to power up and optimize the system for recording broadcasts are identified. Conducting interactive programming is described. Separate sections about power up, optimization, and operation of the SONY Porta-Pac and Harvard Elite audio packages are provided.

## 9. Maintenance Procedures

The specific steps for performing scheduled and severe weather maintenance on the system antenna are identified. The positioning and recording of new satellites is described. The specific steps to follow for determining site-specific solar outage times are provided.

## 10. Troubleshooting

General troubleshooting information relating to operation of the overall system and system components is provided. Specific component model troubleshooting information is included with that model information.

## Appendix A, Support

This includes contact names and phone numbers are provided for USIA WORLDNET support.

## Appendix B, Post Satellite List

This includes a list of each post with the satellites used for that post's TVRO system.

## Appendix C, Post List with Antenna

This includes a list of each post with its TVRO antenna

## Appendix D, Glossary/Translation Table



This lists the technical terms used in this guide with a separate column provided to enter translations.

## Index

## *Notational Conventions*

The following conventions are used in this guide to identify different types of information:

### Symbols

	This international electrical warning symbol identifies potential hazardous voltages.
	This international health and safety warning symbol identifies situations in which precautions should be taken to ensure worker safety.
4	This symbol identifies additional information about a topic.
∫	This symbol identifies an example.

### Equipment Keys and Buttons

Various TVRO system components use keys and buttons for controls. These are shown in white-on-black. For example; press **MODE**.